DOCUMENT RESUME

ED 448 296 CE 081 057

TITLE	Hot Jobs for the 21st Century. Facts on Working Women.
INSTITUTION	Women's Bureau (DOL), Washington, DC.
REPORT NO	DOL-WB-00-03
PUB DATE	2000-04-00
NOTE	9p.; Update of ED 409 486.
AVAILABLE FROM	For full text: http://www.dol.gov/dol/wb/public/wb_pubs/hot2000.htm.
PUB TYPE	Information Analyses (070) -- Numerical/Quantitative Data (110)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Adult Education; *Demand Occupations; *Employed Women; Employment Level; *Employment Patterns; *Employment Projections; Employment Qualifications; Labor Market; *Labor Needs; *Nontraditional Occupations; Occupational Information

ABSTRACT

Between 1998-2008, women's participation in the labor force is expected to increase by 15 percent and men's, by 10 percent. Two views of growth occupations are those with the largest job growth and those with the fastest growth. Employment in professional specialty occupations will increase the fastest and add the most jobs. Much of this growth is expected to be found among teachers; computer, mathematical, and operations research occupations; and health assessment treating occupations. Occupations with the largest projected job growth are concentrated in these four industry sectors--retail trade, business services, health services, and public and private education. Occupations requiring at least a bachelor's degree are concentrated in the professional specialty group. Fast-growing, high-paying jobs are computer engineers, systems analysts, and physician assistants. Large growth occupations are systems analysts, computer engineers, and teachers. High-paying growth occupations requiring postsecondary education are computer support specialists, paralegals, and therapists. Growth occupations that do not require postsecondary education include home health aides, retail salespersons, cashiers, and truck drivers. Nontraditional occupations for women tend to offer higher wages. Fast-growing, high-paying fields with women already in the majority are secondary school and special education teachers, registered nurses, and therapists. (YLB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

CE

ED 448 296

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Facts on Working Women

U.S. Department of Labor
Women's Bureau
Irasema T. Garza, Director

A Voice for Working Women Since 1920

No. 00-03
April 2000

Hot Jobs for the 21st Century

Between 1998 and 2008, U.S. employment will rise to 160.8 million from 140.5 million. This represents an increase of 14 percent, or 20.3 million jobs. Many of these new job opportunities will benefit persons seeking employment in computer and health-related occupations, social services, legal, natural science, teaching, and financial areas.

Women's Labor Force: Women have a huge stake in the current and future job market. Between 1998 and 2008, women's participation in the labor force is expected to increase by 15 percent, while men will only see an increase of about 10 percent. As a result, women will increase their share of the labor force from 46 to 48 percent.

The fastest labor force increase will be among Hispanic origin, Asian, and other[1] women, 48.8 and 45.7 percent, respectively. Black women will increase their participation by 21.1 percent and white women by 12.6 percent.

Growing Occupations: There are two perspectives when viewing growth occupations–1) those with the largest job growth and 2) those with the fastest growth. Largest job growth refers to the total number of jobs created within an occupation over a specific period of time, while fastest job growth refers to the percentage change in employment within a particular occupation over a specific period of time. One fact to remember -- the fast-growing occupations account for less than 20 percent of the projected overall growth in employment between 1998 and 2008. The employment size of an occupation during the base year of comparison has much to do with the growth of the occupation.

Major Occupational Groups: Employment in professional specialty occupations will increase the fastest (27 percent) and add the most jobs (5.3 million) between 1998 and 2008. Much of this growth is expected to be found among teachers, computer, mathematical and operations research occupations, and health assessment and treating occupations. The group with the second fastest growth rate (22.2 percent) is *technicians and related support* occupations–only 1 million new jobs, however, are projected to be created. More than half of this projected job growth is expected among health technicians and technologists.

[1] Asian and other includes (1) Asians and Pacific Islanders and (2) American Indians and Alaska Natives.

CE021057

Employment in *service* occupations is projected to increase by 17.1 percent or 3.9 million jobs. More than half of these newly created jobs will be found in public education, State and local government hospitals, and health services. Other services sector jobs with substantial projected growth are food preparation, personal services, protective service, and cleaning and building services. The number of self-employed service workers is also expected to increase by 222,000 jobs, with large gains in the cleaning and building services occupations and child care workers.

The number of *executive, administrative, and managerial* (EXAM) workers is projected to increase by 16.4 percent, or 2.4 million jobs. Most of these jobs will be found in various segments of the services sector–public education, hospitals, finance, insurance, and real estate, wholesale and retail trade, and transportation and public utilities. The number of self-employed EXAM workers is expected to increase by 361,000–many of these workers run their own businesses or are self-employed consultants.

Table 1 only includes those major occupational groups that equal or exceed the average growth for all occupations. Excluded are administrative support, including clerical; agricultural, forestry, and fishing; precision production, craft, and repair; and operators, fabricators, and laborers.

Table 1

Employment by Selected Major Occupational Group, 1998 and Projected 2008
(numbers in thousands)

	Employment		Change	
Group	1998	2008	Number	Percent
Total, all occupations	140,514	160,795	20,281	14.4
EXAM	14,770	17,196	2,426	16.4
Professional specialty	19,802	25,145	5,343	27.0
Technicians and related support	4,949	6,048	1,098	22.2
Marketing and sales	15,341	17,627	2,287	14.9
Service	22,548	26,401	3,853	17.1

Much faster than average growth: 36 percent or more.
Faster than average growth: 21-35 percent.
About as fast as average growth: 10-20 percent.

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, November 1999.

Fast Growing Occupations: Table 2 shows the 30 fastest growing occupations. The majority are in the computer or health-related fields, with the rest in areas such as social services, legal, natural science, or financial services. For comparison, the occupations have been grouped according to fields of study.

Table 2
Fastest Growing Occupations, 1998-2008
(numbers in thousands)

Occupation	Employment		Change	
	1998	2008	Number	Percent
Computer-Related Occupations				
Computer engineers	299	622	323	108
Computer support specialists	429	869	439	102
Systems analysts	617	1,194	577	94
Database administrators	87	155	67	77
Desktop publishing specialists	26	44	19	73
Data processing equipment repairers	79	117	37	47
Electronic semiconductor processors	63	92	29	45
Engineering, natural science, and computer and information systems managers	326	468	142	43
Health-Related Occupations				
Personal care and home health aides	746	1,179	433	58
Medical assistants	252	398	146	58
Physical assistants	66	98	32	48
Medical records and health information technicians	92	133	41	44
Physical therapy assistants and aides	82	118	36	44
Respiratory therapists	86	123	37	43
Dental assistants	229	325	97	42
Surgical technologists	54	77	23	42
Dental hygienists	143	201	58	41
Occupational therapy assistants and aides	19	26	7	40
Cardiovascular technologies and technicians	21	29	8	39
Speech-language pathologists and audiologists	105	145	40	38
Ambulance drivers and attendants, except EMTs	19	26	7	35
Occupational therapists	73	98	25	34
Social and recreation workers				
Social and human service assistants	268	410	141	53
Residential counselors	190	278	88	46
Social workers	604	822	218	36

Occupation	Employment 1998	2008	Change Number	Percent
Law enforcement occupations				
Correctional officers	383	532	148	39
Legal assistants and technicians, except clerical				
Paralegals and legal assistants	136	220	84	62
Marketing and sales occupations				
Securities, commodities, and financial services sales agents	303	427	124	41
Bill and account collectors	311	420	110	35
Life scientists				
Biological scientists	81	109	28	35

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, November 1999.

Computer and health-related occupations dominate the list of fast-growing occupations. These two occupational groups also represent some of the higher-paying, faster-growing occupations.

Computer-related occupations *(computer engineers, systems analysts, database administrators, data processing equipment repairers)* will grow at a very fast rate in the coming years because of the continuing advances in computer technology. The expanding need for new computer applications for the World Wide Web, scientific research, productivity gains, and demand for cost reductions will fuel the need for computer engineers/programmers, systems analysts, and computer and data processing repairers. The computer field tends to require more education and offer higher earnings than health services, where a number of the fast-growing occupations have lower than median earnings.

Health care occupations will continue to grow rapidly because of a large aging population that will require more health care, a wealthier population that can afford better health care, and the advent of new advances in medical technology. Many of these occupations are *technicians and assistants, such as medical assistants, medical records and health information technicians, physical therapy assistants and aides, and dental assistants.*

Occupations with the Largest Job Growth: Most occupations with the largest projected job growth are concentrated in four industry sectors–retail trade, business services, health services, and public and private education. They will account for more than three-fifths of total job growth from 1998 to 2008. Table 3 lists occupations with largest growth by industry sectors.

Many occupations have average or less than average growth rates while still providing more job openings than some fast-growing occupations strictly because of their large size. Some examples of these occupations are retail salespersons, general managers and top executives, cashiers, general office clerks, and truck drivers.

Table 3

Occupations with the Largest Job Growth, 1998-2008
(numbers in thousands)

Occupation	Employment 1998	Employment 2008	Change Number	Change Percent
Business Services				
Systems analysts	617	1,194	577	94
General managers and top execs	3,362	3,913	551	16
Truck drivers light and heavy	2,970	3,463	493	17
Office clerks, general	3,021	3,484	463	15
Computer support occupations	429	869	439	102
Janitors and cleaners, including maids and housekeeping cleaners	3,184	3,549	365	11
Computer engineers	299	622	323	108
Office and administrative support supervisors and managers	1,611	1,924	313	19
Receptionists and information clerks	1,293	1,599	305	24
Guards	1,027	1,321	294	29
Marketing and sales worker supvrs.	2,584	2,847	263	10
Child care workers	905	1,141	236	26
Laborers, landscaping and grounds keeping	1,130	1,364	234	21
Computer programmers	648	839	191	30
Adjustment clerks	479	642	163	34
Correctional officers	383	532	148	39
Retail Trade				
Retail salespersons	4,056	4,620	563	14
Cashiers	3,198	3,754	556	17
Waiters and waitresses	2,019	2,322	303	15
Food counter, fountain, and related workers	2,025	2,272	247	12
Health Services				
Registered nurses	2,079	2,530	451	22
Personal care and home health aides	746	1,179	433	58
Nursing aides, orderlies, attendants	1,367	1,692	325	24
Social workers	604	822	218	36
Public and Private Education				
Teacher assistants	1,192	1,567	375	31
Teachers, secondary school	1,426	1,749	322	23
Teachers, elementary school	1,754	1,959	205	12
College and university faculty	865	1,061	195	23

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, November 1999.

Educational Requirements: Occupations requiring an associate degree or higher level of education accounted for one-fourth of all jobs in 1998 and will account for 40 percent of total job growth between 1998 and 2008. Those requiring no education and training beyond high school, except for on-the-job training, will account for 57 percent.

Occupations **requiring a bachelor's degree or more education** are concentrated in the professional specialty group. The 1999 median weekly earnings figure for full-time wage and salary workers employed in professional specialty occupations was $800 (both sexes). Examples of fast-growing, high-paying jobs in this category include: *computer engineers, systems analysts, database administrators, physician assistants, residential counselors, social workers, biological scientists, and occupational therapists.* Examples of large growth occupations in this category are *systems analysts, computer engineers, elementary and secondary school teachers, social workers, college and university faculty, and computer programmers.*

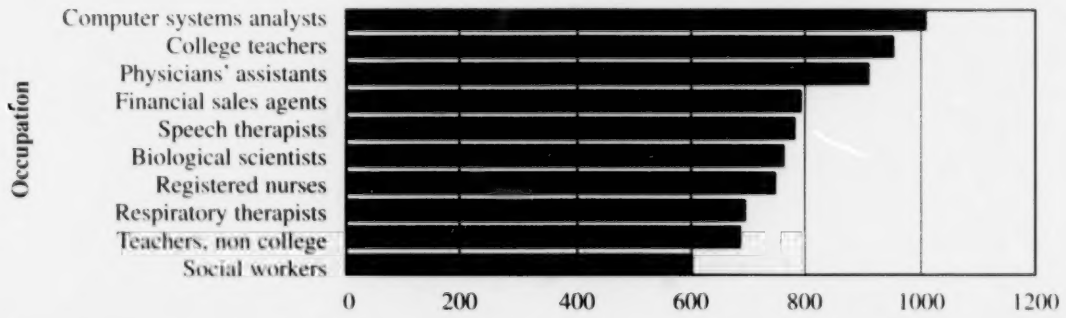
Examples of high-paying growth occupations that may not require a bachelor's degree but do **require post-secondary education or training** are: *computer support specialists, desktop publishing specialists, paralegals, medical records/health information technicians, physical and occupational therapy assistants, respiratory therapists, dental hygienists, cardiovascular technologists and technicians, and correctional officers.* (It is important to realize that employers may favor applicants with more education or training than is minimally required.)

Growth occupations that **do not require post-secondary education** generally do not offer the higher than median earnings associated with the above-mentioned jobs. Many of these jobs require short-term on-the-job training in which the worker can usually learn their skills in less than a year. They include: *home health aides, bill and account collectors, retail salespersons, cashiers, truck drivers, teacher assistants, janitors and cleaners, nursing aides, orderlies, waiters and waitresses, guards, food counter workers, child care workers, and laborers.* None of these occupations had median weekly earnings higher than the average ($549) for all workers in 1999.

Education and training are critical elements in preparing for our employment futures. As Chart 1 shows, most high-paying, fast-growing occupations require at least a bachelor's degree and/or extensive, equivalent work experience.

Chart 1

Wages of selected fast-growing, high-paying occupations, 1998-2008



Source: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, January 2000 and *Monthly Labor Review*, November 1999.

Nontraditional Occupations for Women: The Women's Bureau has a long history of encouraging women to seek jobs offering good wages and employee benefits, many of which are nontraditional occupations for women. We use *"nontraditional occupation,"* or NTO, to describe any occupation in which women comprise 25 percent or less of total employment.

Many people hear this term and think immediately of outdoor work that is physically demanding, dirty or dangerous in nature--construction jobs, automobile mechanics, or heavy equipment operators. In fact, NTOs span all six major occupational groups--managerial and professional; technical, sales, and administrative support; service; precision production, craft and repair; operators, fabricators, and laborers; and farming, forestry, and fishing occupations.

NTOs tend to offer higher wages than many of the occupations where women are in the majority. *Engineers, architects, police and detectives, electrical and electronic technicians and technologists* are examples of nontraditional occupations that are expected to exhibit fast growth and/or create a large number of jobs. All have 1999 median weekly earnings higher than the average for all wage and salary workers who usually work full time.

While women should consider promising NTOs, they should also look to fast-growing, high-paying fields where women are already in the majority. Some examples are: *secondary school teachers; special education teachers; registered nurses; respiratory, physical, and occupational therapists.*

Congress has passed two pieces of legislation to help women gain self-sufficiency by increasing opportunity in nontraditional fields. The Nontraditional Employment for Women **(NEW)** Act, effective July 1, 1992, was created to broaden the range of Job Training Partnership Act **(JTPA)** training and placement for women. The Women in Apprenticeship and Nontraditional Occupations **(WANTO)** Act, effective October 27, 1992, was designed to provide technical assistance to employers and labor organizations. Both of these government programs were funded by JTPA Title IV-D. JTPA will be suspended by the Workforce Investment Act on July 1, 2000.

Under the 4-year NEW demonstration grant program ended in 1996, the Women's Bureau and the U.S. Department of Labor's Employment and Training Administration (ETA) awarded 23 NEW grants to 22 States to provide for systemic change in State JTPA and other training and placement programs. Almost 5,000 women have directly participated in training and/or job placement. NEW program awareness and orientation classes reached more than 30,000 women through program notices, workshops, conferences, seminars, videos, notices in churches, welfare agencies and related social agencies, and community mailings.

Through WANTO, the Women's Bureau and ETA's Bureau of Apprenticeship and Training have awarded community-based organizations 38 grants to provide technical assistance to employers and labor organizations promoting apprenticeship and NTOs in their workplace policies and practices between Fiscal Years '94 and '99. WANTO has provided more than 3,000 direct consultations and has indirectly provided assistance to many more employers and labor organizations and their representatives to develop strategies through conferences, workshops, and subject-specific seminars (mentoring, sexual harassment, support groups, training, etc.) in on- and off-site venues.

U.S. DEPARTMENT OF LABOR
WOMEN'S BUREAU
REGIONAL ADDRESSES/CONTACT INFORMATION

Region I: Boston
Jacqueline Cooke, RA
J.F.K. Federal Building
Government Center
Room E-270
Boston, MA 02203
Phone: (617)565-1988 or
1-800-518-3585
Fax: (617)565-1986
(Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)

Region II: New York
Mary C. Murphree, RA
201 Varick Street
Room 601
New York, NY 10014-4811
Phone: (212)337-2389
Fax: (212)337-2394
(New Jersey, New York, Puerto Rico, Virgin Islands)

Region III: Philadelphia
Cornelia Moore, RA
The Curtis Center, Suite 880 West
170 S. Independence Mall West
Philadelphia, PA 19106-3318
Phone: (215)861-4860 or
1-800-379-9042
Fax: (215)861-4867
(Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia)

Region IV: Atlanta
Delores Crockett, RA
Field Coordinator
Atlanta Federal Center
61 Forsyth Street, SW Suite 7T95
Atlanta, GA 30303
Phone: (404)562-2336 or
1-800-672-8356
Fax: (404)562-2413
(Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Region V: Chicago
Nancy Chen, RA
230 S. Dearborn Street, Room 1022
Chicago, IL 60604
Phone: (312)353-6985 or
1-800-648-8183
Fax: (312)353-6986
(Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Region VI: Dallas
Beverly Lyle, RA
Federal Building
525 Griffin Street, Suite 735
Dallas, TX 75202
Phone: (214)767-6985 or
1-888-887-6794
Fax: (214)767-5418
(Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Region VII: Kansas City
Rose Kemp, RA
City Center Square Building
1100 Main Street, Suite 845
Kansas City, MO 64105
Phone: (816)426-6108 or
1-800-252-4706
Fax: (816)426-6107
(Iowa, Kansas, Missouri, Nebraska)

Region VIII: Denver
Frances Jefferson, RA
1801 California Street, Suite 905
Denver, CO 80202-2614
Phone: (303)844-1286 or
1-800-299-0886
Fax: (303)844-1283
(Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Region IX: San Francisco
Jenny Erwin, RA
71 Stevenson Street, Suite 927
San Francisco, CA 94105
Phone: (415)975-4750 or
1-877-923-6509
Fax: (415)975-4753
(Arizona, California, Guam, Hawaii, Nevada)

Region X: Seattle
Karen Furia, RA
Manuelita Ybarra, EOS
Pamela Felton, EOA
1111 Third Avenue, Room 925
Seattle, WA 98101-3211
Phone: (206)553-1534 or
1-888-296-7011
Fax: (206)553-5085
(Alaska, Idaho, Oregon, Washington)

Women's Bureau National Resource and Information Center (NRIC)

1-800-827-5335

Internet Address

http://www.dol.gov/dol/wb/

Fair Pay Clearinghouse

1-800-347-3743

E-mail Address

Wb-wwc@dol.gov